

In the Specification:

Please Amend paragraph 29 beginning on page 8, line 24 as follows:

The CDSA 30 is an existing security layer configuration for providing a widely-accepted set of layered security services defined by Intel Architecture Labs (IAL). Typically, the CDSA is implemented in computer software. Briefly, the functions and operations of the CDSA 30 will be discussed. The CDSA 30 includes a Common Security Services Manager (CSSM) API (application programming interface) that interacts with the applications 22-24 and the editor 25 to allow the applications 22-24 and the editor 25 to access the security-based services offered by the CDSA 30. The CDSA 30 also includes a plurality of service provider modules that offer these security-based services. Among the known service provider modules, the CDSA 30 may include a Cryptographic Service Provider (CSP) module, a Trust Policy (TP) module, a Certificate Library (CL) module, a Data storage Library (DL) module, and an Authorization Computation (AC) module, all known in the art. These modules provide services such as cryptographic operations including bulk encrypting and digital signature processing, accessing remote signing entities such as Certification Authorities (CA), storing certificates and cryptographic keys, etc. In addition, the CDSA 30, as known, includes elective module managers (EMM) that allow new services to be added easily. Under control of the EMM, new services can be added easily in a secure manner by merely providing new service provider modules as plug-ins that implement the new services. The process of adding and integrating the new service modules as plug-ins into the CDSA 30 is known in the art. More detailed operations and functions of the service provider modules and the CSSM API as well as the overall architecture of the CDSA 30 can be found at the website of "developer.intel.com/ial/security/." <http://developer.intel.com/ial/security/>.

Please amend paragraph 49 beginning on page 16, line 27 as follows:

Now, one example of a meta data organization usable by the "Remember" interface 16 of the HAPI 14 will be discussed in more detail referring to Figs. 3A and 3B. Fig. 3A shows an

example of a computer form usable in the present invention, and Fig. 3B shows examples of (key, value) pairs obtainable from the computer form of Fig. 3A according to one embodiment of the present invention. As shown in Fig. 3A, assume that a computer form 40 to be filled by a user is presented to the user on the device 10. The computer form 40 includes at least two fields 41 and 42, and a "Submit" button 43 for sending the completed form to an appropriate receiving party. The first field 41 is for entering the user ID and the second field 42 is for entering the pass code. The form 40 has the URL of "www.ibm.com." ~~"http://www.ibm.com"~~.

Please amend paragraph 50 beginning on page 17, line 7 as follows:

Given the form 40, the "Remember" interface 16 may collect meta data from the form 40, which are represented as a plurality of (key, value) pairs as shown in Fig. 3B. Particularly, for each of the data fields 41 and 42, a meta data group is established wherein the plurality of meta data groups constitute a meta data set. Each meta data group includes application data (in this case, a field value) and context data associated with that value. For instance, for the user ID field 41, the meta data group A is established. The meta data group A is composed of application data represented by a (key, value) pair 44 and context data represented by (key, value) pairs 45. The (key, value) pair 44 indicates that the value V of the field (key) 41 is "MPeters". The context data 45 indicates the context in which the field value "MPeters" is used. In this case, the context of the field 41 is identified to be as follows: the name of the field 41 is "euser", the description of the field 41 is "User ID", the form 40 having the field 41 is called "customerinfo", the URL of the form 40 is ~~"http://www.ibm.com"~~, "www.ibm.com," the URL referred in the form 40 is ~~"http://www.ibm-product.com"~~, "www.ibm.product.com," and the role of the user (i.e., role in which the user functioned in filling out this form) is "manager". Similarly, the meta data group B established for the field 42 includes a (key, value) pair 46 indicating that the field value V is "123", and context data 47 indicating the context of the field 42. The meta data groups A, B, ..., are related to each other and constitute a meta data set wherein all the data belonging to the meta data set are related to each other. In this example, the user's role can be collected by requesting the user to specify the user's current role, e.g., using a pop-up window, the meta data editor 25 or some other means, or can be determined using other available meta data, e.g., by comparing the

meta data with similar meta data stored in the database(s) 15. This approach is applicable to all embodiments discussed herein.

Please amend paragraph 52 beginning on page 18, line 5 as follows:

Retrieve best 5 V Context (50%role=manager, 25%URL=~~http://www.ibm.com~~
25%URL="www.ibm.com," 10%descript=User ID, 5%fieldname=euser,
~~10%RefURL=http://www.ibm.product.com)~~
10%RefURL="www.ibm.product.com");

Please amend paragraph 53 beginning on page 18, line 8 as follows:

Retrieve best 5 V Context (50%role=manager, 25%URL=~~http://www.ibm.com~~
25%URL="www.ibm.com," 10%rescript=Pass Code, 5%fieldname=verification,
~~10%RefURL=http://www.ibm.product.com)~~
10%RefURL="www.ibm.product.com");